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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,905	09/28/2004	Marco Schiano	23071	4265

535 7590 12/29/2005

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EXAMINER

NGUYEN, TU T

ART UNIT	PAPER NUMBER
2877	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/509,905	Applicant(s) SCHIANO, MARCO	
	Examiner Tu T. Nguyen	Art Unit 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fortenberry (6313,934) in view of Pellaux et al (FR 2 601 134).

With respect to claims 1,5, Fortenberry discloses an apparatus for measuring the chromatic dispersion of an optical system. The apparatus comprises: an optical source 16 (fig 1) able to generate optical signals at variable wavelength (tunable laser); a signal generator able to generate modulation signals 3 (fig 1); a modulator 14 (fig 1) able to generate modulated optical signals 7 (fig 1) on the basis of said optical signals 5 (fig 1) and of said modulation signals 3 (fig 1); sending the modulated optical signals to a first end of said optical system 11 (fig 1); comparison means for measuring a phase difference between the modulated signals 3 (fig 1) and the return signals 9 (fig 1).

Fortenberry does not disclose the claimed coupler, the mirror at the end of the further end of the fiber and the impulsive electrical signals. Pellaux disclose a system for measuring chromatic dispersion of a fiber. The system comprises: a coupler 30 (fig 2), a mirror 41 (fig 1) at the further end of the fiber 33 (fig 2). Fortenberry discloses in an embodiment using amplitude modulated pulse signals (column 3, lines 14-16). It would have been obvious to modify Fortenberry with the coupler and the mirror taught by

Pellaux and the amplitude modulated pulse signals taught by Fortenberry in column 3, lines 14-16 to measure the chromatic dispersion using only one end of the fiber to facilitate the measuring. Further, it would have been obvious to modify Fortenberry with the claimed impulsive electrical signals to use the system for measuring different types of fiber.

With respect to claim 2, Pellaux discloses the claimed coupler 30 (fig 2). Fortenberry discloses the claimed receiver 32 (fig 2) for converting the detected signal into electrical signals and a phase comparator 34 (fig 2) to generate an electrical signal 35 (fig 2) representing the phase difference.

With respect to claims 3-4,6, since Fortenberry discloses performing the phase comparison at a various optical wavelength provided by the tunable laser (column 2, lines 35-40), it would have been obvious to modify Fortenberry with the claimed controller to control the signals having any desired range of wavelengths to facilitate the measuring. Further, Fortenberry discloses calculating the chromatic dispersion based on the phase difference of the signals (column 4, lines 40-55).

With respect to claims 7-12, it would have been obvious a design choice to modify Fortenberry such that the amplitude of the pulses is variable in sinusoidal fashion or to modify the duration of the pulses as claimed to measure different types of fiber.

Response to Arguments

Since the applicant does not explicitly point out the differences between the prior arts and the claimed invention. The cited prior arts seem to read on the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu T. Nguyen whose telephone number is (571) 272-2424. The examiner can normally be reached on T-F 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Toatley Jr. can be reached on (571) 272-2800 Ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tu T. Nguyen
Primary Examiner
Art Unit 2877

12/21/2005